SAMSUNG CX-5012ZQ

MODEL

SERVICE MANUAL

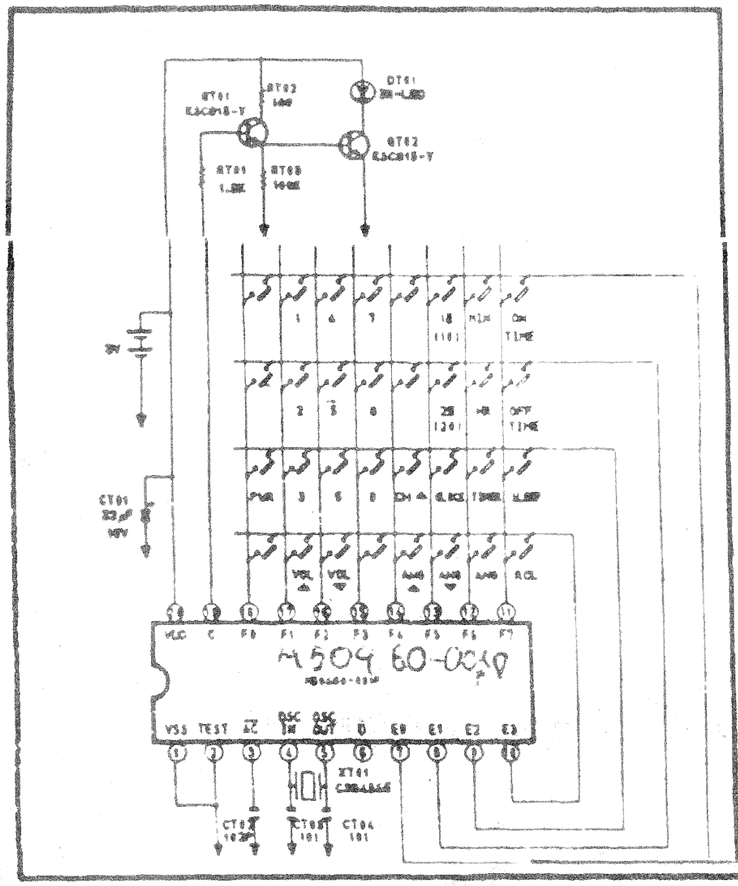
SCHEMATIC DIAGRAM

CHASSIS NO : P54SC

CODE-NO : 38104-183-640

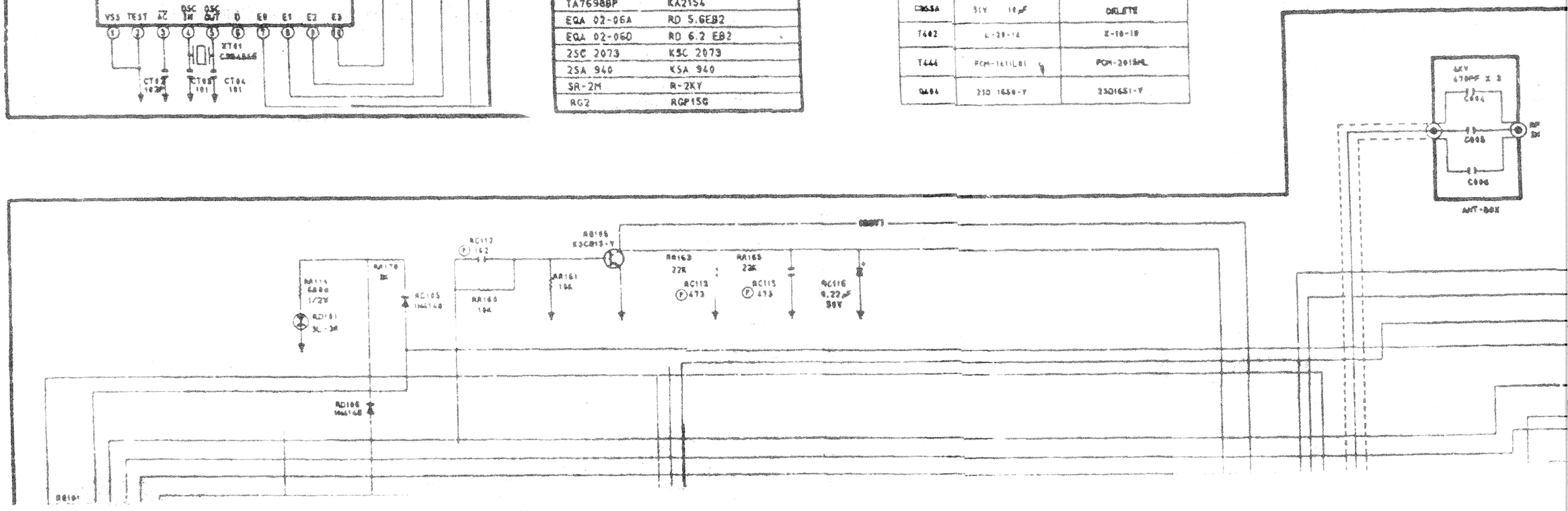
OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with "VTVM" from point shown to voltage 220/240V colour bar signal.
2. Voltages reading may vary ±20%.
3. The schematic shown is representative only.
4. All wavefroms are taken using a wide band osc capacity probe.
5. Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST, and best picture.
6. Waveforms are taken using a standard colour



EQUIVALENT PARTS TABLE	
STANDARD	REPLACEMENT
KSC815-O,Y	2SC815-O,Y
2SA1015-O,Y	KSA539-O,Y
2SC2120-O,Y	KSC2331-O,Y
2SC2229-OY	KSC2310-O,Y
2SC2482 (FA-11	KSC2330-O
2SC562TM-O	KSA642-O
IN4148	S-99 (1S55)
SS295G	RUI ERB 29-04,TVR10G
RH-1	ERB 43-04,TVR06G
RU-2	ERC24-06,SRP100J
1S1888	ERB12-06,M100J
SS/TA7698AP	KA2154
LA7520	KA2919
AN7812	MC7812
TA7698BP	KA2154
EQA 02-06A	RD 5.6EB2
EQA 02-06O	RD 6.2 EB2
2SC 2073	KSC 2073
2SA 940	KSA 940
SR-2M	R-2KY
RG2	RGP15G

REPLACEMENT TABLE		
LOC-NO \ INCH	14" , 16"	18" , 20"
R318	Ⓟ 1/2W 270J	Ⓜ 1W 510-J
R290	Ⓜ 1/2W 51K-K	Ⓜ 1/2W 43.2K-F
C413	25V 27P	DELETE
C855A	50V 10μF	DELETE
T402	L-20-16	K-10-10
T444	PCM-1611L81	PCM-2015HL
Q486	2SD 1638-Y	2SD1651-Y



SCHEMATIC DIAGRAM

CHASSIS NO : P54SC

CODE-NO : 38104-183-640

OBSERVATION OF VOLTAGES AND WAVEFORMS

1 Voltages read with "VTVM" from point shown to chassis ground. line voltage 220/240V colour bar signal.
2 Voltages reading may vary ±20%.
3 The schematic shown is representative only.
4 All wavefroms are taken using a wide band oscilloscope and a low capacity probe.
5 Check FINE TUNING,AGC,BRIGHTNESS,CONTRAST,and COLOUR controls for best picture.
6 Waveforms are taken using a standard colour bar signal.

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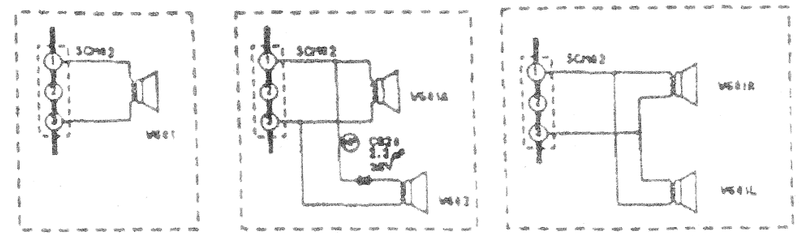
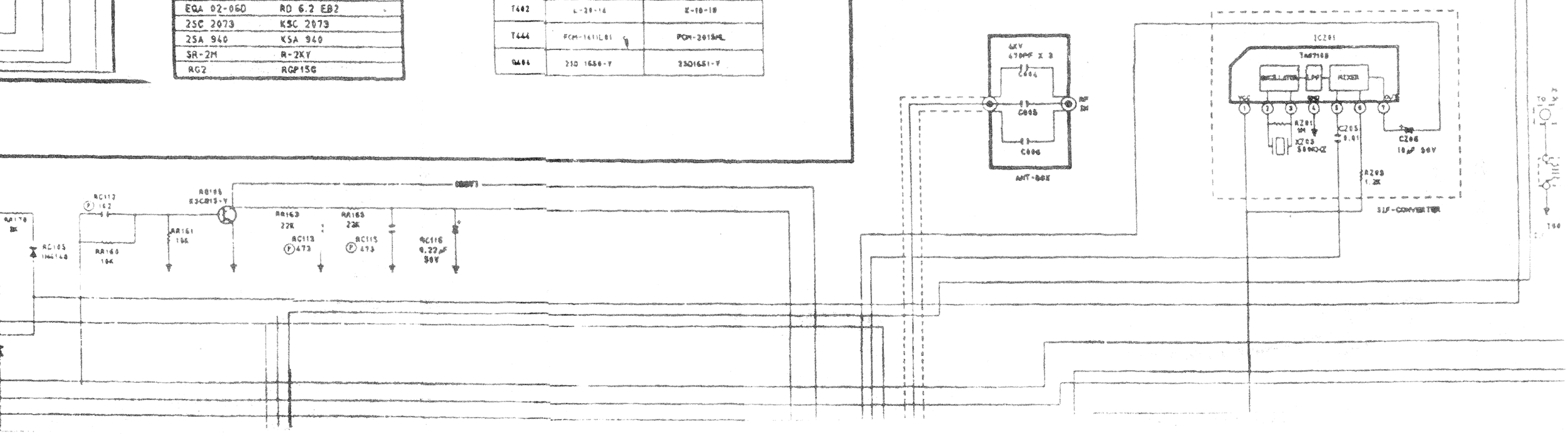
EQUIVALENT PARTS TABLE	
STANDARD	REPLACEMENT
KSC815-0,Y	2SC815-0,Y
2SA101S-0,Y	KSA539-0,Y
2SC2120-0,Y	KSC2331-0,Y
2SC2229-0Y	KSC2310-0,Y
2SC2482 (FA-11	KSC2330-0
2SC562TM-0	KSA642-0
IN4148	S-99 (1S553
5S295G	RUI ERB 29-04,TVR10G
RH-1	ERB 43-04,TVR06G
RU-2	ERC24-06,SRP100J
1S1888	ERB12-06,M100J
SS/TA7698AP	KA2154
LA7520	KA2919
AN7812	MC7812
TA7698BP	KA2154
EQA 02-06A	RD 5.6EB2
EQA 02-06D	RD 6.2 EB2
2SC 2073	KSC 2073
2SA 940	KSA 940
SR-2M	R-2KY
RG2	RGP15G

REPLACEMENT TABLE		
LOC-NO		
R318	1/2W 270J	1W 510-J
R208	1/2W 51K-K	1/2W 43.2k-F
C413	25V 27μ	DELETE
C853A	51V 10μF	DELETE
T402	L-20-14	K-10-10
T444	PCM-1411L01	PCM-2015ML
0484	210 1636-Y	2SD1651-Y

SPEAKER TABLE





EXPRESSION

1 Resistance is shown ohm K=1,000 M=1,000,000.
2 Unless otherwise noted in schematic,allcapacitor values less than 1 are expressed in mfd,the values more than 1 in pF.
3 Unless otherwise noted in schematic all inductor values are expressed in uH,and the values less than 1 in mH.

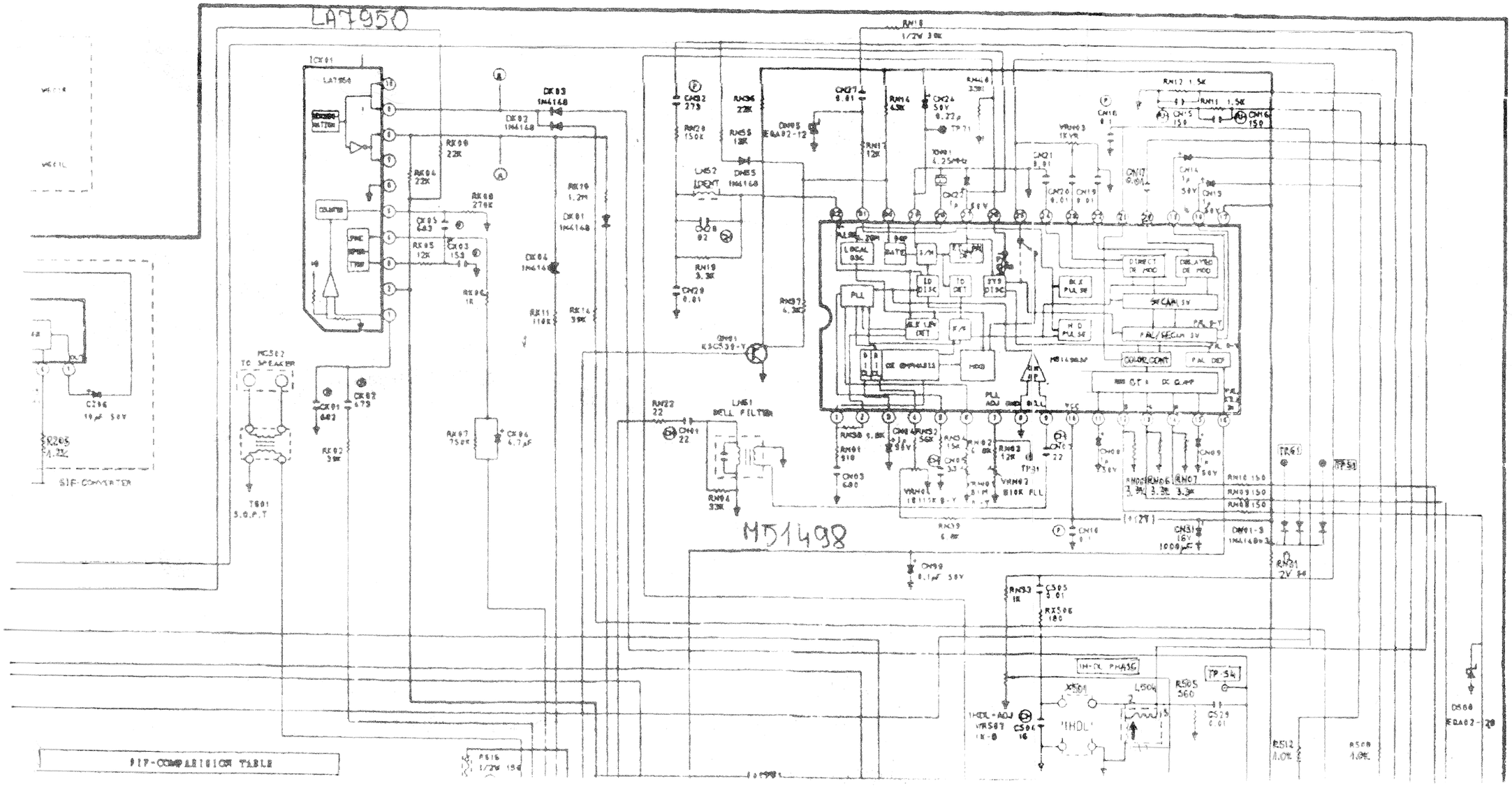
NOTE

The circuits are sublect to change without notice to improve the quality

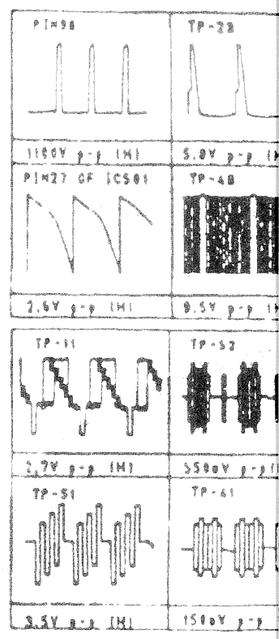
RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cement	R-C
Variable Resistor	
Positive Resistor	

CAPA	
TYPE	
Ceramic	
Polyeste	
Tantallu	
Metal Polye	
Polypropyle	
Polyester P	
Chemical Elec	
Chemical Nor	

LA7950



THE WAVEFORMS

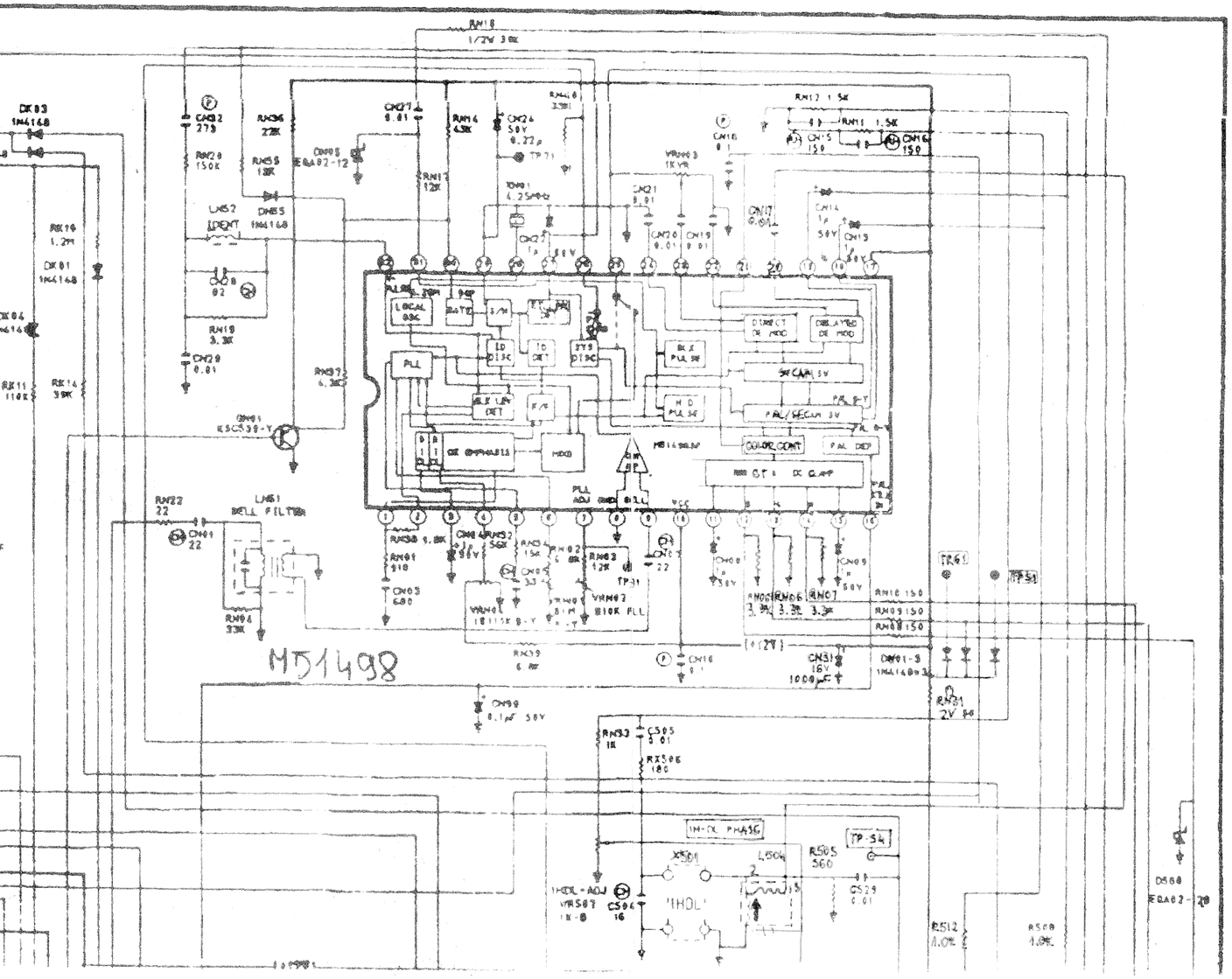


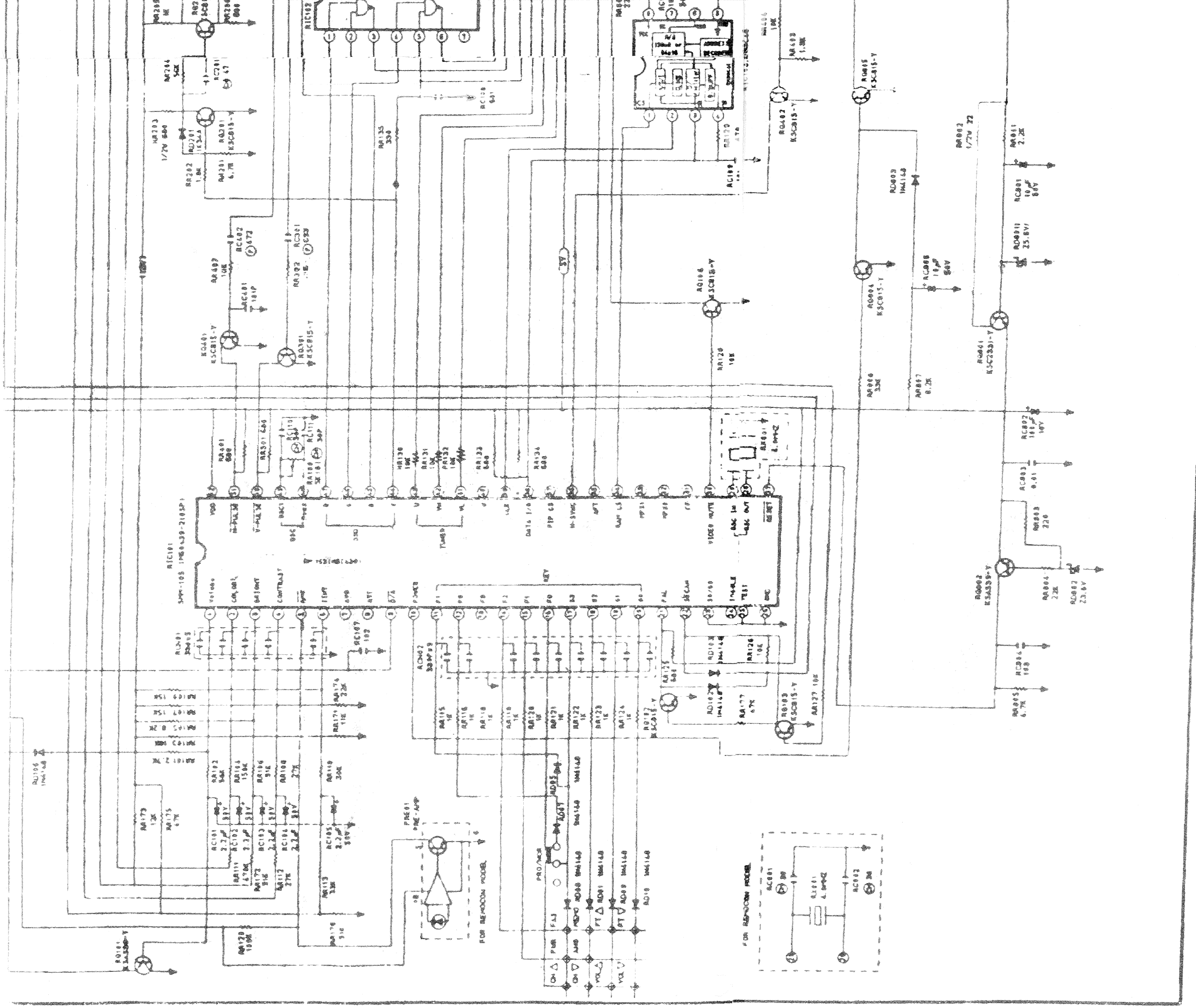
K=1,000 M=1,000,000.
schematic,allcapacitor values less
fd,the values more than 1 in pF.
schematic all inductor values are exp-
es less than 1 in mH.

to change without notice to improve

RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cement	R-C
Variable Resistor	
Positive Resistor	

CAPACITOR	
TYPE	MARK
Ceramic	No Mark
Polyester	P
Tantallum	T
Metal Polyestor	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	
Chemical Non-Polar	





PARTS \ SYSTEM	B/S	B/G
TU101	ECC-2B43ME	ECC-7
Z101	TSF-1343M	TSF-1
Z201	TPS 5.5MB	TPS 5
Z202	DELETE	TPS 5
Z501	SPT 5.5MB	SPT 5
Z502	CDA 5.5MC	CDA 5
T101	32719-600-B01	32718

TUNER TU000

BU VT BH AGC BL AFT +B IF

IC101 LA7520

Z101 SAW-FILTER

IF-JACK

T101 IF MATCH

RIC102 M74LS00

RIC103,RIC104 M74LS08

FM DET. MUTE

ATT IF AMP IF AGC

AFC VIDEO

3DF DET

TO SIF CONVERTER

T801 CHOPPER TRANS S3

POSISTOR

D801-D804 ERB12-06X4

C801-C806 2200PX6 AC250V

SW801 POWER S/W

P001 100-240V AC POWER CORD

L802 COIL DEGAUSSING

P17-COMPARISION TABLE		
	3 / 5	8/8 . DX . I
ZA01	ECC-208 SME	ECC-708 SME
Z301	TSP-1303M	TSP-1912A
Z302	TP3 5.5MB	TP3 6.5MB
Z601	DELETE	TP3 5.5MB
[illegible]	SPF 5.5MB	SPF 6.0MB
[illegible]	CDA 5.5MC	CDA 8.0MC
[illegible]	32710-600-101	32710-600-905

TA7698

LA7320

STR50103A

KA2131

T801 CHOPPER TRANS S3

Q801 STR50103A

IC301 AN5512 KA2131 VERT OUTPUT

Q402 2SC2331-Y HORIZ DRIVER

A7698

3.5V p-p (H)	1580V p-p (H)	3180V p-p (H)	2560V p-p (H)

Q531-Q536 :	KSC7230	R531-R537 :	150
D5341-D5343 :	PM4148	R5341-R5343 :	330
R5330-R5340 :	680		

VIDEO PICTURE TUBE

IC501 AN5512 KA2131 VERT OUTPUT

Q402 KSC7231-O HORIZ DRIVER

Q406

T401 H.DRIVE TRANS

T602 SIDE P.C.B

T646 P.B.T

HORIZ OUTPUT

FLYBACK GEN

DRIVE

PULSE SHAPER

OUT PUT

POWER BOOST-UP

SCREEN

FOCUS

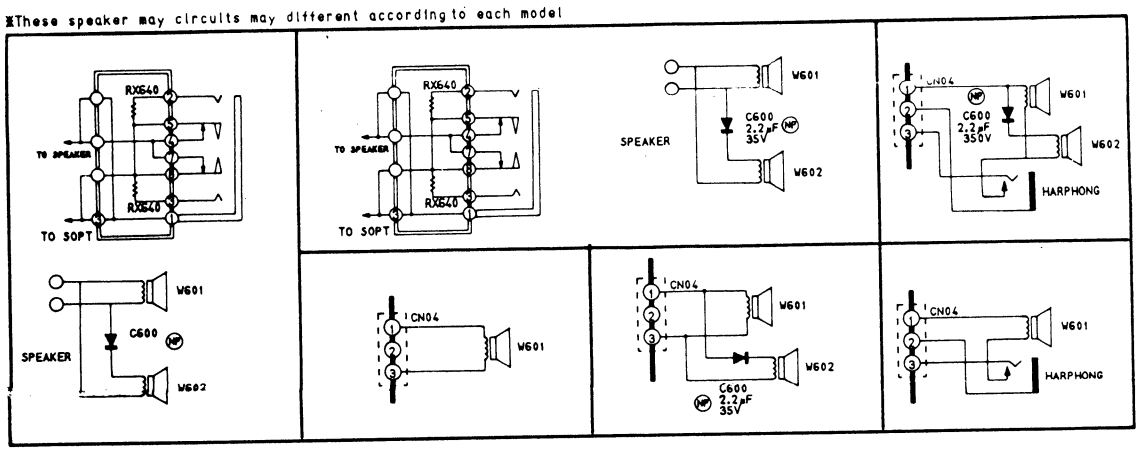
H-OUT

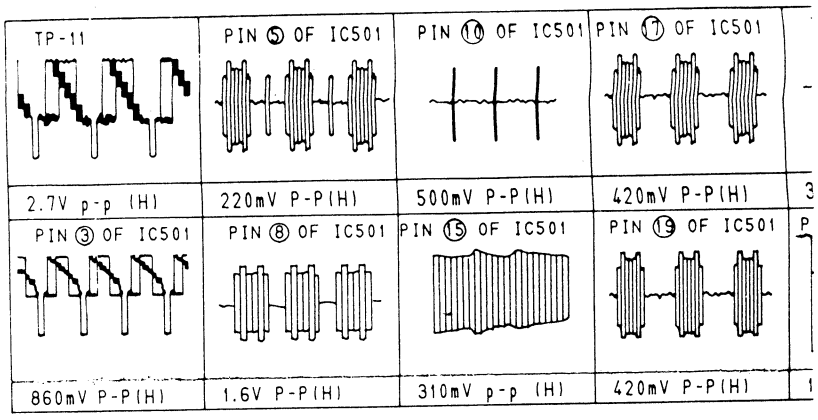
SVC SWITCH

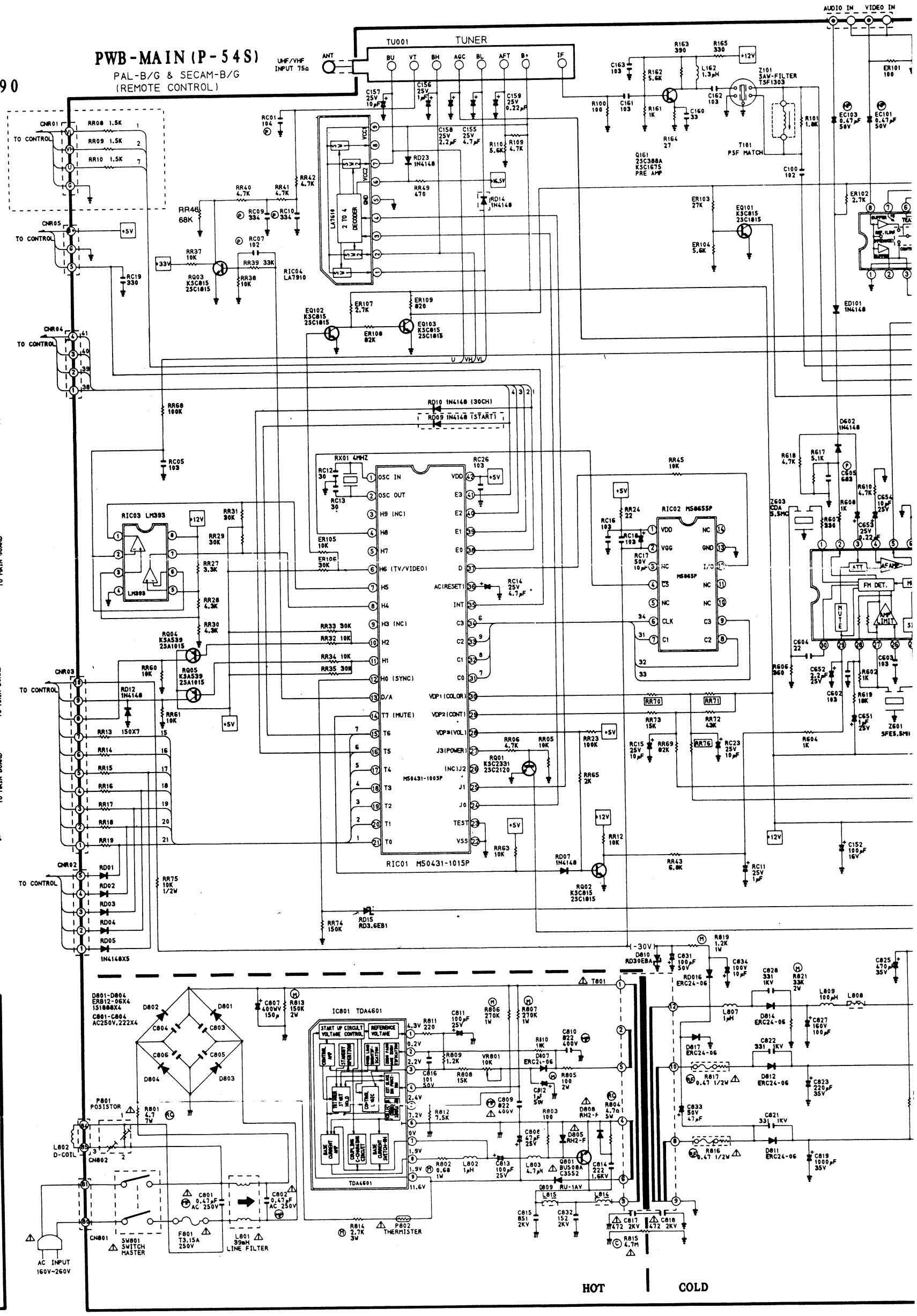
CHASSIS NAME : P-54S
CODE NO. : 38104-182-790

PWB-MAIN (P-54S)

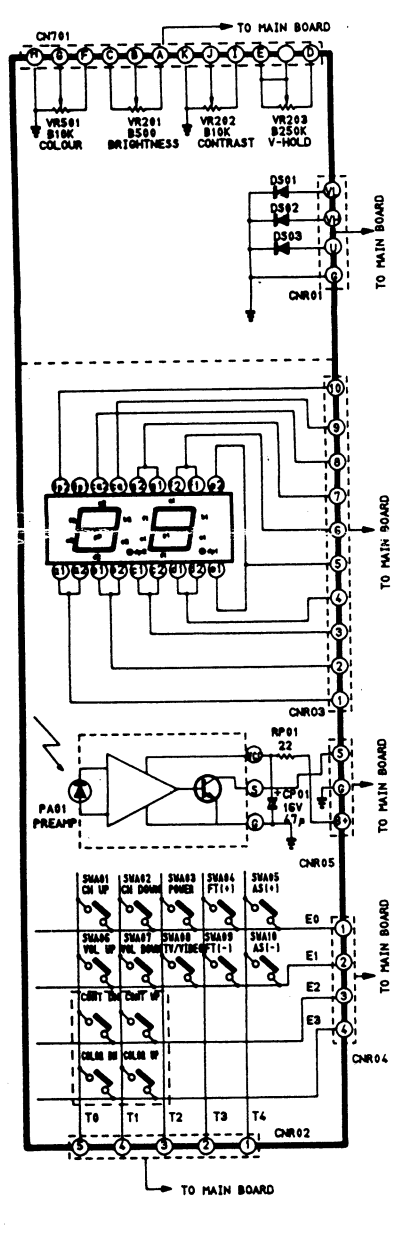
PAL-B/G & SECAM-B/G
(REMOTE CONTROL)



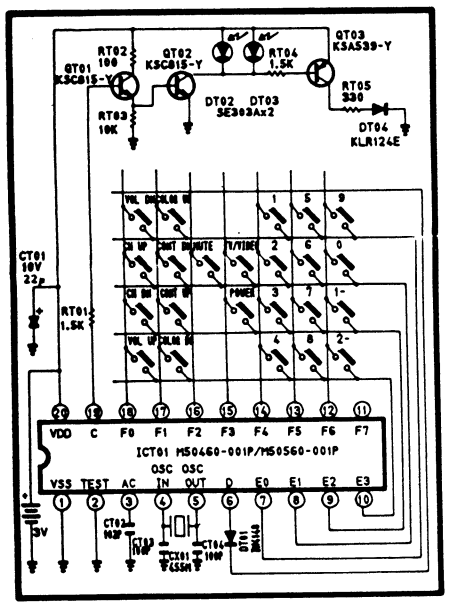




PWB-CONTROL



PWB-TRANSMITTER



OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with "VTVM" from point shown to chassis ground, line voltage 220volts color bar signal.
2. Voltages reading may vary ±20%.
3. The schematic shown is representative only.
4. All waveforms are taken using a vide band oscilloscope and a low capacity probe.
5. Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST, and COLOR controls for best picture.
6. Waveforms are taken using a standard color bar signal.

EXPRESSION

1. Resistance is shown in ohm. K = 1,000 M = 1,000,000
2. Unless otherwise noted in schematic all capacitor values less than 1 are expressed in mfd, the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values are expressed in uH, and the values less than 1 in mH.

NOTE

The circuits subject to change without notice to improve the picture quality.

C501	TP-51	PIN ① OF MCTQ1	PIN ㊳ OF IC501	PIN ㉜ OF IC501	PIN ㉗ OF L406
(H)	3.5V p-p (H)	120V p-p (H)	5.8V p-p (H)	2.8V p-p (H)	55v p-p (H)
C501	PIN ② OF MCT01	PIN ③ OF MCT01	PIN ㊴ OF IC501	PIN ㉜ OF IC501	PIN ㉗ OF IC501
(H)	120v p-p (H)	120V p-p (H)	9.5V p-p (H)	2.4V p-p (H)	2.6V p-p (H)

CAPACITOR	
TYPE	MARK
Ceramic	No Mark
Polyester	P
Tantallum	T
Metal Polyestor	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	+‖-
Chemical Non-Polar	‖

RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cement	R-C
Variable Resistor	
Positive Resistor	

COLOUR CONTROL

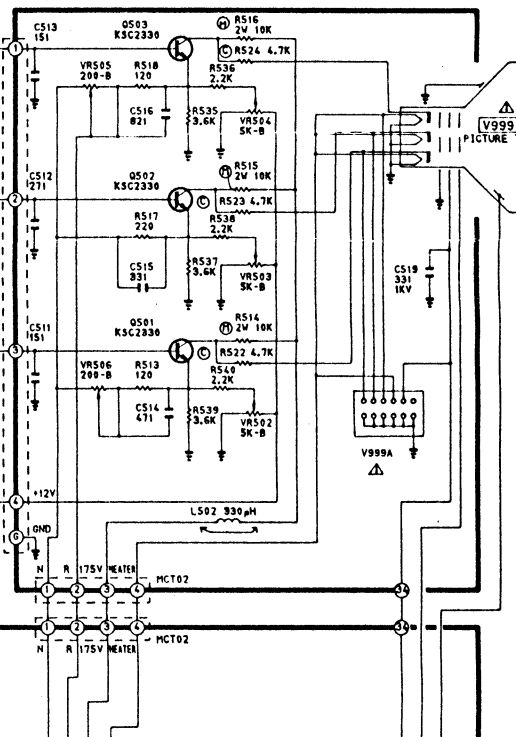
LOC \ SYSTEM	MANUAL VR	MANUAL UP/DN
RR70	1.0K	51K
RR71	180K	OPEN
RR76	220K	56K
RN08	10K	560K

REPLACEMENT TABLE

LOC. \ INCH	14", 16"	18" 20"
R315	(M) 270. 1W	(M) 330 1W
R614	82K	100K
R616	36K	62K
C413	271 2KV	681 2KV
C414	(P.P) 0.47 400V	(P.P) 0.43 400V
	(P.P) & 0.56 400V	
L401	157μH	195μH
T402	K-20-14	K-10-19
Q404	2SD1650	2SD1651
	2SD1554	2SD1555
L406	DIE-1492HL/#18380	DIE-1992GL
	DIE-1692HL	#1810
T444	FCG 1445EL	FCG 2045BL

V999	CRT	R208	CRT	R208
	3701B22/#A37-573X	(M) 1/2W 127K-F	5106B22/5106XB22	(M) 1/2W 110K-F
	3720B22	(M) 1/2W 110K-F	5169H91X/5120B22	(M) 1/2W 91K-F
	4201B22	(M) 1/2W 127K-F		
	42GGN91X	(M) 1/2W 110K-F		

PWB - CRT



FILE NAME: CX528Z

제목부서	TEAM	엔지	JOB-NO	OPE
CTV 연구실	PAL1	K.I.MIN		KIM

oscilloscope and a low capacity probe.
AST, and
or bar signal.

expressed in mfd, the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values are expressed in uH, and the values less than 1 in mH.

NOTE
The circuits subject to change without notice to improve the picture quality.

) OF MCTQ1	PIN 38 OF IC501	PIN 37 OF IC501	PIN 42 OF L406
p-p (H)	5.8V p-p (H)	2.8V p-p (H)	55v p-p (H)
) OF MCT01	PIN 38 OF IC501	PIN 32 OF IC501	PIN 27 OF IC501
p-p (H)	9.5V p-p (H)	2.4V p-p (H)	2.6V p-p (H)

CAPACITOR	
TYPE	MARK
Ceramic	No Mark
Polyester	P
Tantalium	T
Metal Polyestor	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	
Chemical Non-Polar	

RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cement	R-C
Variable Resistor	
Positive Resistor	

COLOUR CONTROL

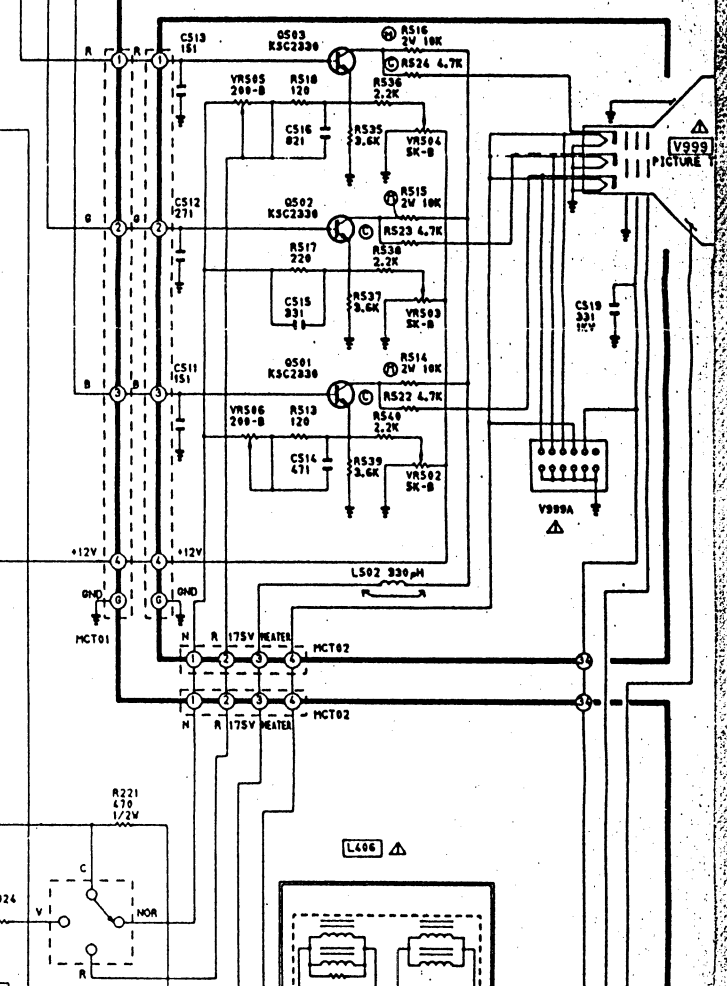
LOC \ SYSTEM	MANUAL VR	MANUAL UP/DN
RR70	1.8K	51K
RR71	180K	OPEN
RR76	220K	56K
RN08	10K	560K

REPLACEMENT TABLE

LOC. \ INCH	14". 16"	18" 20"
R315	(M) 270, 1W	(M) 330 1W
R614	82K	100K
R616	36K	62K
C413	271 2KV	681 2KV
C414	(P.P) 0.47 400V	(P.P) 0.43 400V
	(P.P) K 0.56 400V	
L401	157μH	195μH
T402	K-20-14	K-10-19
Q404	2SD1650	2SD1651
	2SD1554	2SD1555
L406	DIE-1492HL/R10380	DIE-19920L
	DIE-1692HL	R1010
T444	FC0 1445EL	FC0 2045BL

	CRT	R208	CRT	R208
V999	3701B22/EA37-573X	(M) 1/2W 127K-F	S106B22/S10UXB22	(M) 1/2W 110K-F
	3720B22	(M) 1/2W 110K-F	S16GH91X/S120B22	(M) 1/2W 91K-F
	4201B22	(M) 1/2W 127K-F		
	420GN91X	(M) 1/2W 110K-F		

PWB-CRT

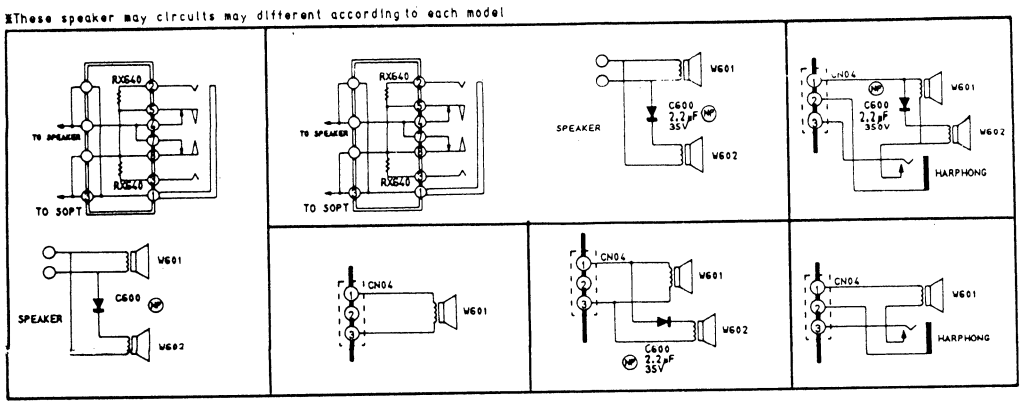


FILE NAME: CX528Z

제작부서	TEAM	설계	JOB-NO	OPE
CTV연구실	PAL1	K.I.MIN		KIM

CHASSIS NAME : P-54S
CODE NO. : 38104-182-790

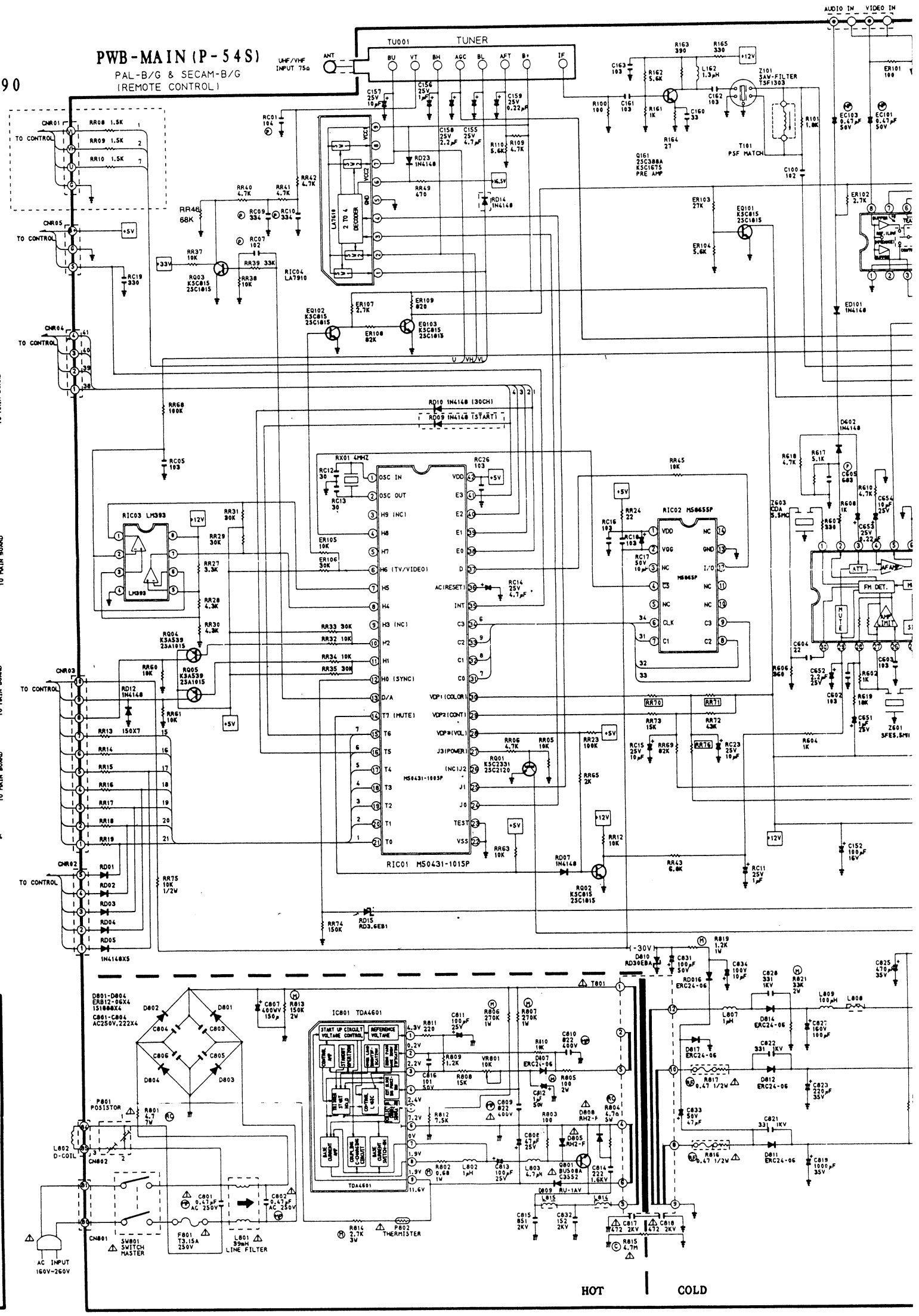
※These speaker may circuits may different according to each model



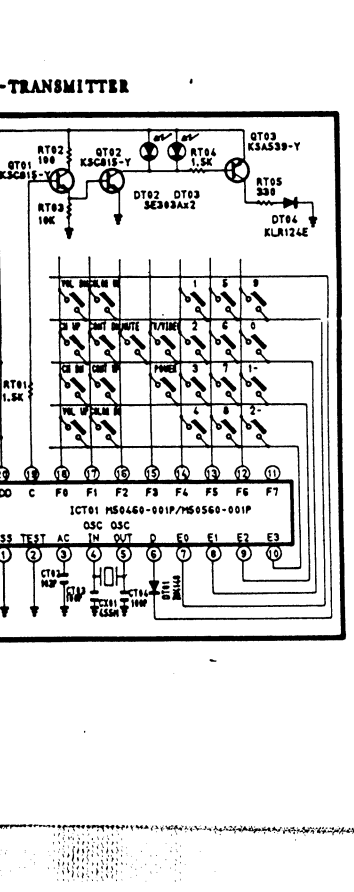
TP-11	PIN ⑤ OF IC501	PIN ⑩ OF IC501	PIN ⑰ OF IC501
2.7V p-p (H)	220mV P-P(H)	500mV P-P(H)	420mV P-P(H)
PIN ③ OF IC501	PIN ⑧ OF IC501	PIN ⑮ OF IC501	PIN ⑲ OF IC501
860mV P-P(H)	1.6V P-P(H)	310mV p-p (H)	420mV P-P(H)

PWB-MAIN (P-54S)

PAL-B/G & SECAM-B/G
(REMOTE CONTROL)



PWB-CONTROL



PWB-TRANSMITTER

OBSERVATION OF VOLTAGES AND WAVEFORMS

. Voltages read with "VTVM" from point shown to chassis ground.
  Use voltage 220volts color bar signal.
. Voltages reading may vary ±20%.
. The schematic shown is representative only.
. All waveforms are taken using a wide band oscilliscope and a low capacity probe.
. Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST, and
  COLOR controls for best picture.
. Waveforms are taken using a standard color bar signal.

EXPRESSION

1. Resistance is shown in ohm. K = 1,000 M = 1,000,000
2. Unless otherwise noted in schematic all capacitor values less than 1 are expressed in mfd, the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values are expressed in uH, and the values less than 1 in mH.

NOTE

The circuits subject to change without notice to improve the picture quality.

01	TP-51	PIN ① OF MCTQ1	PIN 38 OF IC501	PIN 32 OF IC501	PIN V2 OF L406
	3.5V p-p (H)	120V p-p (H)	5.8V p-p (H)	2.8V p-p (H)	55v p-p (H)
501	PIN ② OF MCT01	PIN ③ OF MCT01	PIN 36 OF IC501	PIN 42 OF IC501	PIN 27 OF IC501
	120v p-p (H)	120V p-p (H)	9.5V p-p (H)	2.4V p-p (H)	2.6V p-p (H)

CAPACITOR	
TYPE	MARK
Ceramic	No Mark
Polyester	P
Tantallum	T
Metal Polyestor	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	⊣‖⊢
Chemical Non-Polar	—‖—

RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cement	R-C
Variable Resistor	
Positive Resistor	

COL

LOC \ SYSTEM	MAN
RR70	1.
RR71	18
RR76	22
RN08	10

REPLACEMENT TA

LOC. \ INCH	14". 16"
R315	Ⓜ 270. 1W
R614	82K
R616	36K
C413	271 2KV
C414	(P.P) 0.47 400V
	(P.P) ※ 0.56 400V
L401	157μH
T402	K-20-14
Q404	2SD1650
	2SD1554
L406	DIE-1492HL/※18380
	DIE-1692HL
T444	FCG 1445EL
V999	CRT / R2
	3701B22/※A37-573X / Ⓜ 127K
	3720B22 / Ⓜ 110K
	4201B22 / Ⓜ 127K
	42GGN91X / Ⓜ 110K

PWB - CRT

SAMSUNG CW 5012

R.M.

ASAN 004-546 02

SCHEMATIC DIAGRAM

CHASSIS NO : P54SC

CODE-NO : 3818A-183-640

OBSERVATION OF VOLTAGES AND WAVEFORMS

1 Voltages read with "VTVM" from point shown to chassis ground, line voltage 220/240V colour bar signal.
2 Voltages reading may vary ±20%.
3 The schematic shown is representative only.
4 All wavefroms are taken using a wide band oscilloscope and a low capacity probe.
5 Check FINE TUNING,AGC,BRIGHTNESS,CONTRAST,and COLOUR controls for best picture.
6 Waveforms are taken using a standard colour bar signal.

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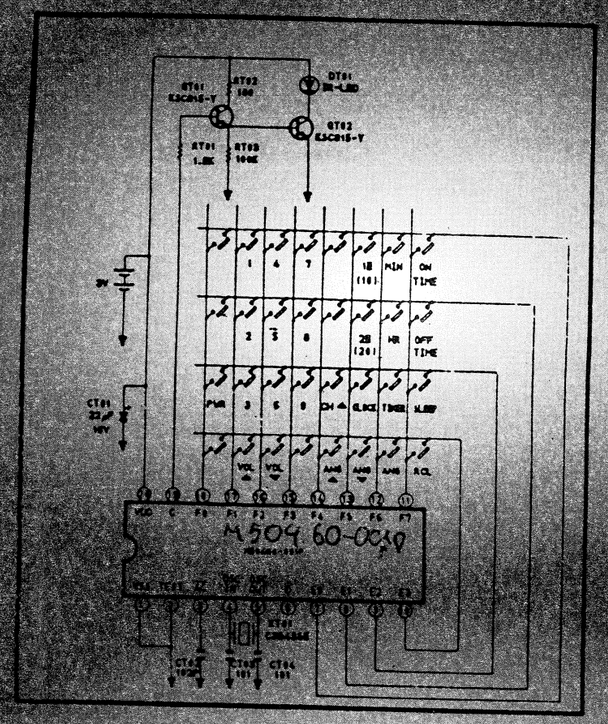
EQUIVALENT PARTS TABLE

STANDARD	REPLACEMENT
KSC815-O,Y	2SC815-O,Y
2SA1015-O,Y	KSA539-O,Y
2SC2120-O,Y	KSC2331-O,Y
2SC2229-OY	KSC2310-O,Y
2SC2402 (FA-1)	KSC2331-O
2SC562TM-O	KSA642-O
1N4148	S-98
552956	ROY 560 ±5% 2W TYP100
RH-1	CRB 33-2G TYP680
RU-2	CRC5-2G TYP10KJ
154868	CRB5-2G TYP33KJ
2SK241-GR/BL	KA2161
KA7812	KA7812
KA7815	KA7815
TA7368P	KA2156
FCH-09-2004	PCH-2015HL
PCH-32-650	PCH-2015HL
2SC2073	KSC2073
2SA546	KSA642
SR-2M	A-367
RG2	KBP206

REPLACEMENT TABLE

LOC-NO \ INCH	14", 16"	18", 20"
R315	Ⓚ1/2W 270J	Ⓚ1W 510-J
R208	Ⓚ1/2W 51K-K	Ⓚ1/2W 43.2K-F
C413	25V 27J	DELETE
C855A	50V 10μF	DELETE
T402	K-20-14	K-18-18
T444	PCH-1611L01	PCH-2015HL
Q404	2SD 1650-Y	2SD1651-Y



EXPRESSION

1. Resistance is shown ohm-K=1,000 M=1,000,000
2. Unless otherwise noted in schematic,all capacitor values less than 1 are expressed in mfd,the values more than 1 in pF.
3. Unless otherwise noted in schematic all inductor values are expressed in uH,and the values less than 1 in mH.

NOTE
The circuits are subject to change without notice to improve the quality

RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cement	R-C
Variable Resistor	
Positive Resistor	

CAPACITOR	
TYPE	MARK
Ceramic	No Mark
Polyester	P
Tantallum	T
Metal Polyestor	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	
Chemical Non-Polar	

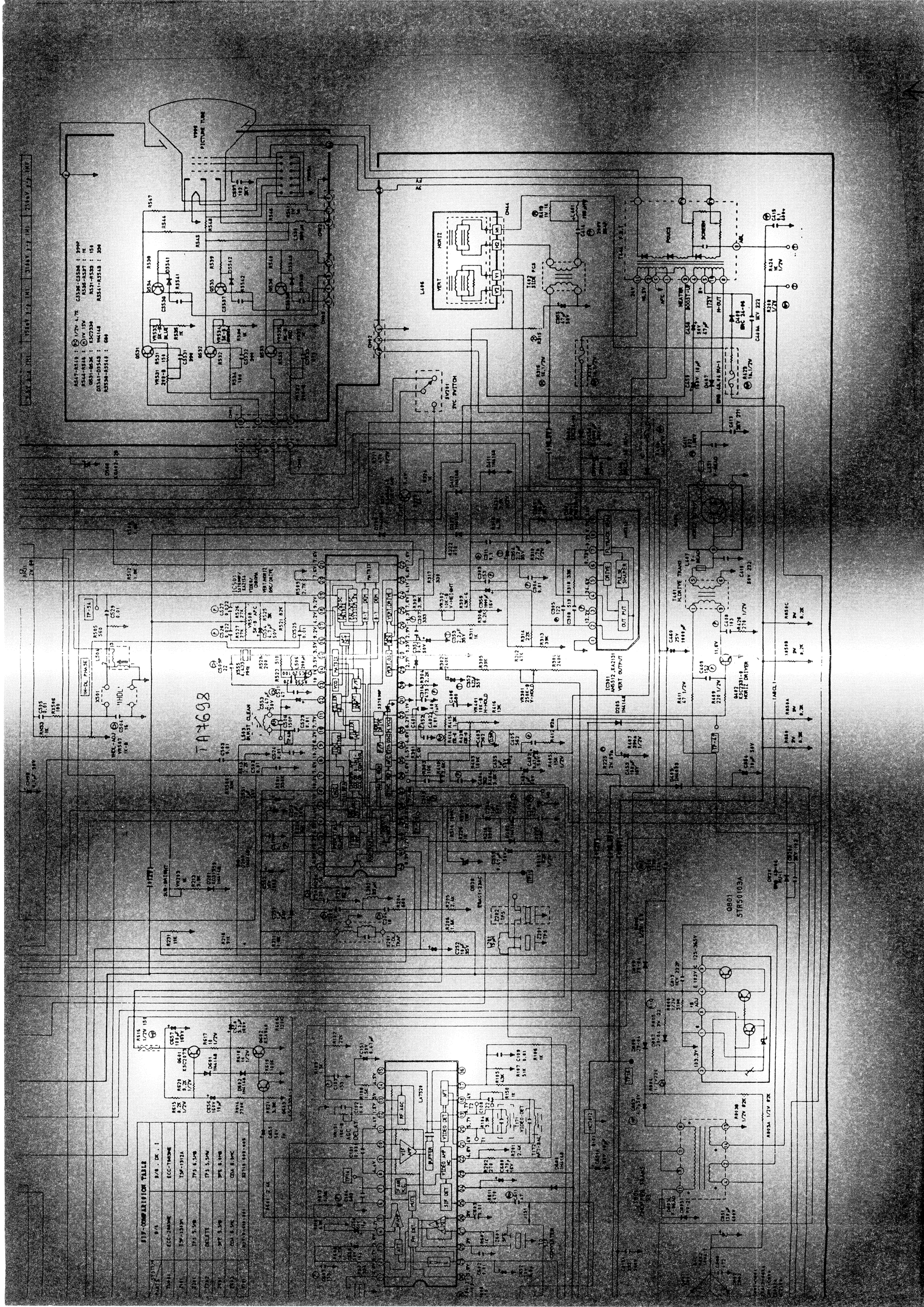
LA7950

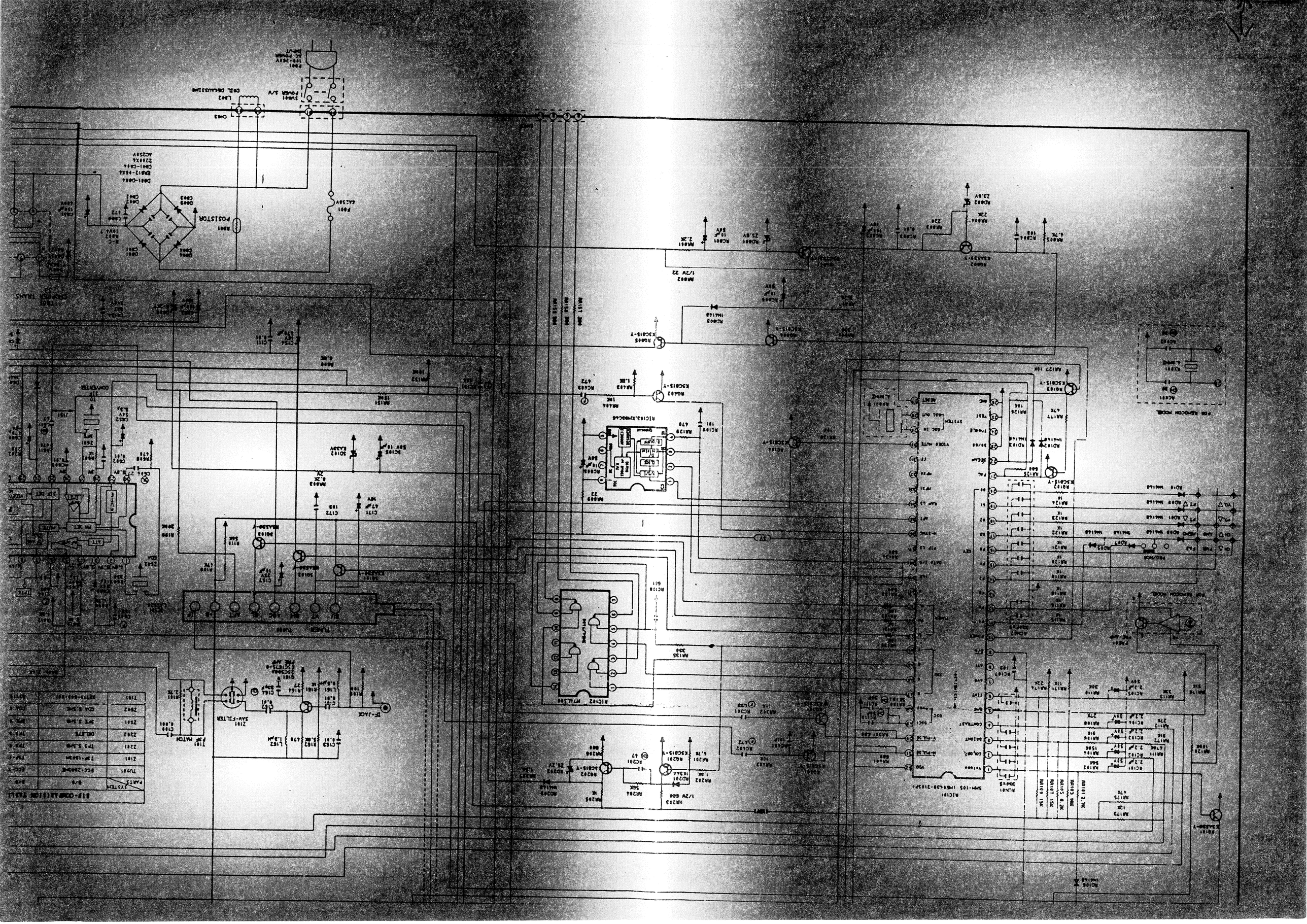
M51498

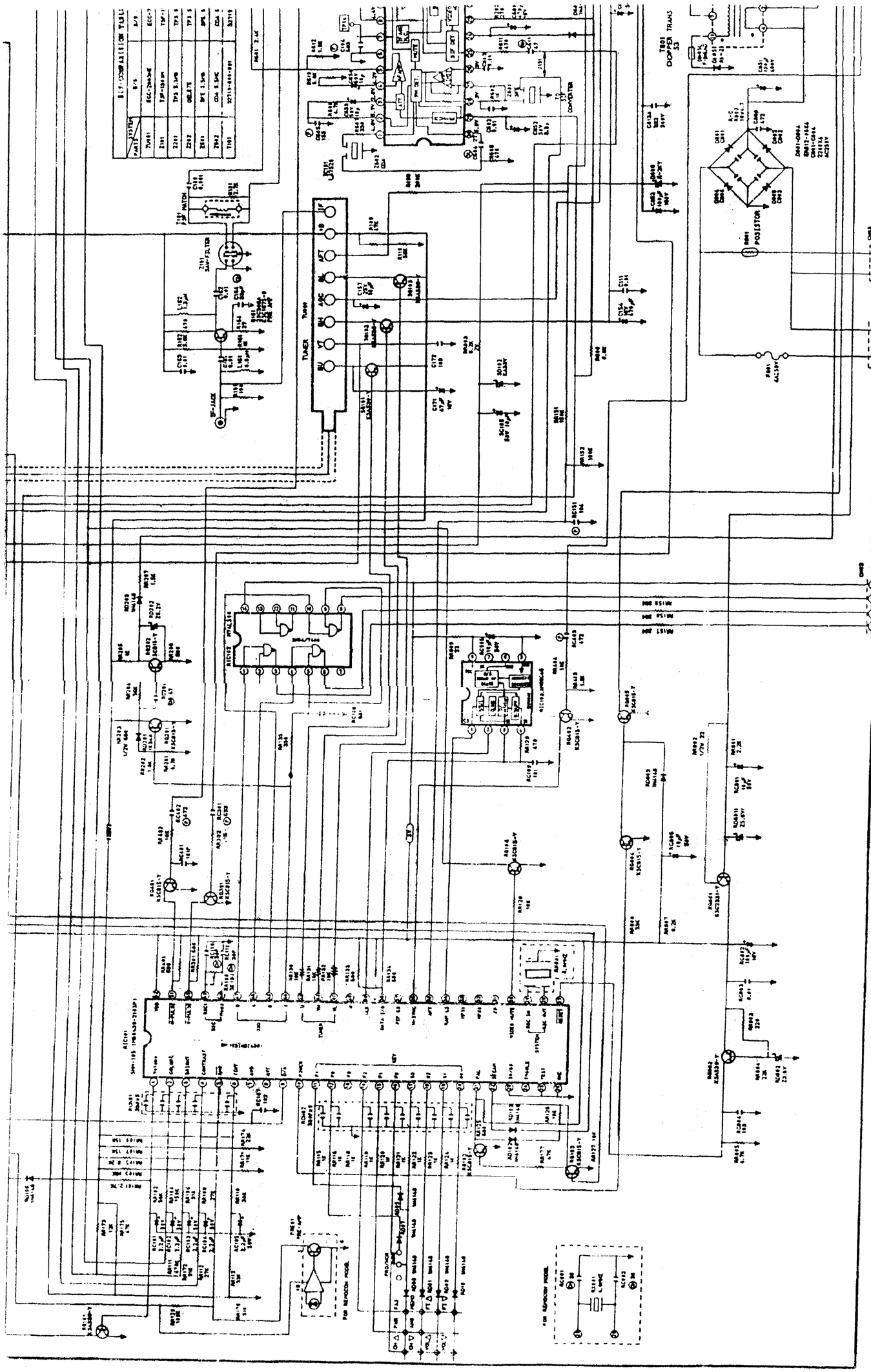
THE WAVEFORMS OF EACH TEST POINT

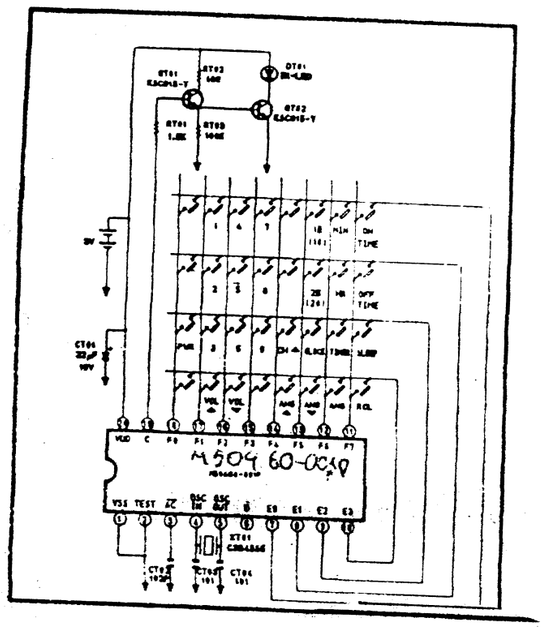
PIN98	TP-23	PIN34 OF IC501	PIN 42
3.6V p-p (H)	5.8V p-p (H)	2.8V p-p (H)	55V p-p (H)
PIN37 OF IC501	TP-48	TP-47	
2.6V p-p (H)	4.5V p-p (H)	2.6V p-p (H)	
TP-11	TP-52	TP-43	TP-58
2.7V p-p (H)	550mV p-p (H)	550mV p-p (H)	50mV p-p (H)
TP-51	TP-61	TP-44	TP-54
3.5V p-p (H)	150mV p-p (H)	310mV p-p (H)	250mV p-p (H)

R547-R549 : 1/2W 4.7K
R544-R546 : 1W 15V
Q531-Q536 : KSC2336
D5541-D5543 : 1N4148
R5538-R5540 : 680
C5536-C5538 : 390P
R535-R537 : 1K
R531-R533 : 150
R5541-R5543 : 330


TA7698
Q801
STR50103A
VERT. OUTPUT
HORIZ. DRIVE
PULSE SHAPER
VIDEO DET
VIF AGC
SYNC SEPARATOR
PICTURE TUBE
FLYBACK TRANS
HORIZ. OUTPUT
SYNC SWITCH
POWER SUPPLY







SCHEMATIC DIAGRAM

CHASSIS NO : P54SC

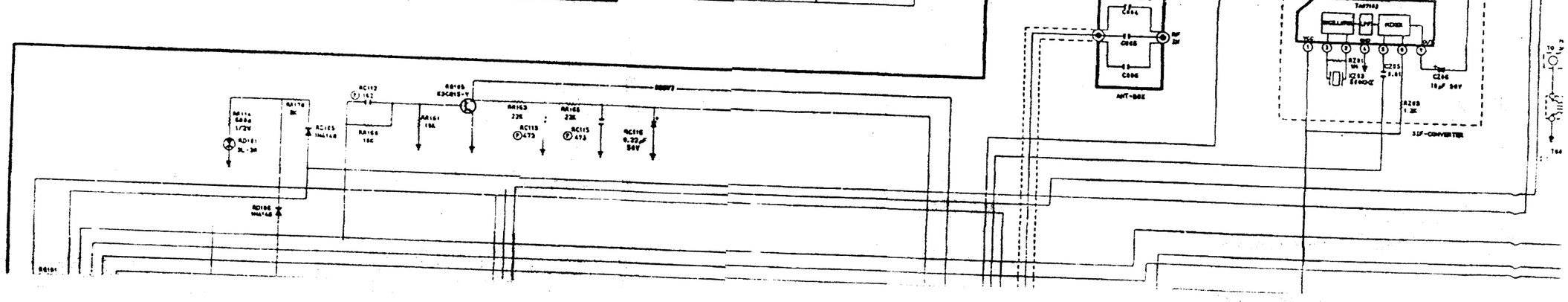
CODE-NO : 38104-183-640

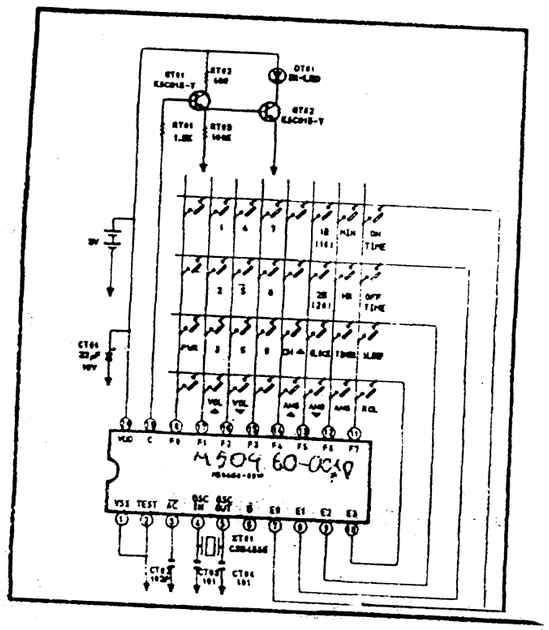
EQUIVALENT PARTS TABLE	
STANDARD	REPLACEMENT
KSC815-0.Y	2SC815-0.Y
2SA1015-0.Y	KSA539-0.Y
2SC2120-0.Y	KSC2331-0.Y
2SC2229-0Y	KSC2310-0.Y
2SC2482 (FA-11	KSC2330-0
2SC5627TM-0	KSA642-0
1N4148	5-99 (1SS51
5S295G	RUI ERB 29-04.TVR10G
RH-1	ERB 43-04.TVR06G
RV-2	EAC24-06.SRP100J
151B00	ERB12-06.M100J
5S/TA7698AP	KA2154
LA7520	KA2919
AN7812	MC7812
TA7698BP	KA2154
EQA 02-06A	RD 5.6EB2
EQA 02-06D	RD 6.2 EB2
2SC 2073	KSC 2073
2SA 940	KSA 940
SR-2M	R-2KY
RG2	RGP15G

OBSERVATION OF VOLTAGES AND WAVEFORMS

1 Voltages read with "VTVM" from point shown to chassis ground, line voltage 220/240V colour bar signal.
2 Voltages reading may vary ±20%.
3 The schematic shown is representative only.
4 All wavefroms are taken using a wide band oscilloscope and a low capacity probe.
5 Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST and COLOUR controls for best picture.
6 Waveforms are taken using a standard colour bar signal.

REPLACEMENT TABLE		
LOC-NO \ SHOW	14" 16"	18" . 20"
R265	⑥1Y 270J	⑥1W 510-J
R280	⑥1/2W 51K-J	⑥1/2W 68.2k-F
C413	25V 271	DELETE
C8554	50V 10μF	DELETE
T402	L-20-14	E-10-10
T444	PQH-1611L01	PQH-2015HL
R404	25D 1650-Y	2SD1651-Y





SCHEMATIC DIAGRAM

CHASSIS NO : P54SC

CODE-NO : 38104-183-640

EQUIVALENT PARTS TABLE	
STANDARD	REPLACEMENT
KSC815-0.Y	2SC815-0.Y
2SA1015-0.Y	KSA539-0.Y
2SC2120-0.Y	KSC2331-0.Y
2SC2229-0Y	KSC2310-0.Y
2SC2482 (FA-11)	KSC2330-0
2SC562TM-0	KSA642-0
1N4148	S-99 1S555
SS295G	RUI ERB 29-04.TVR10G
RH-1	ERB 43-04.TVR06G
RV-2	ERC24-06.SRP100J
151B8B	ERB12-06.M100J
55/TA7698AP	KA2154
LA7520	KA2919
AN7812	MC7812
TA7698BP	KA2154
EQA 02-06A	RD 5.6EB2
EQA 02-06D	RD 6.2 EB2
2SC 2073	KSC 2073
2SA 940	KSA 940
SR-2M	R-2KY
RG2	RGP15G

OBSERVATION OF VOLTAGES AND WAVEFORMS

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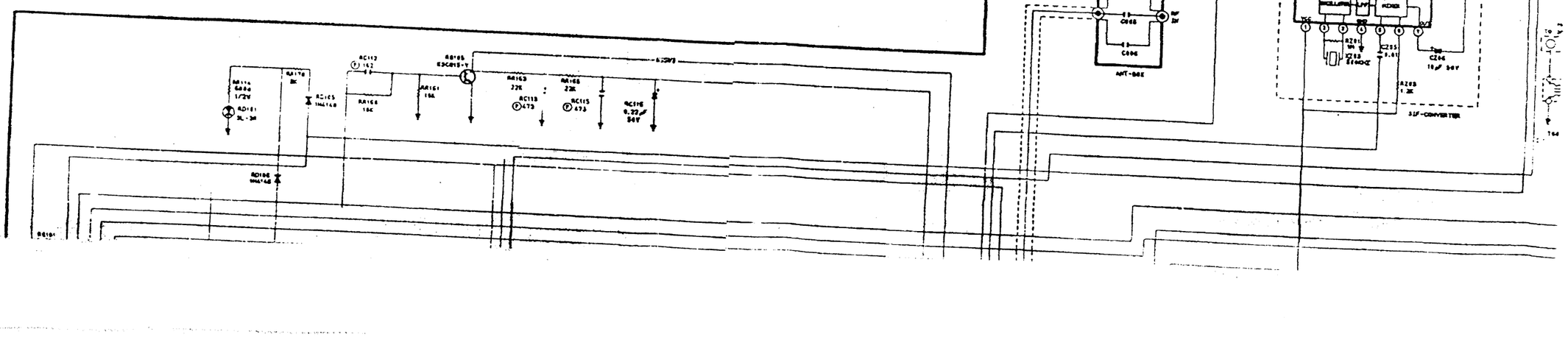
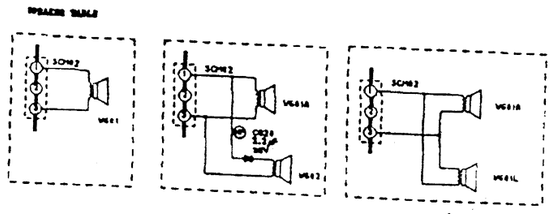
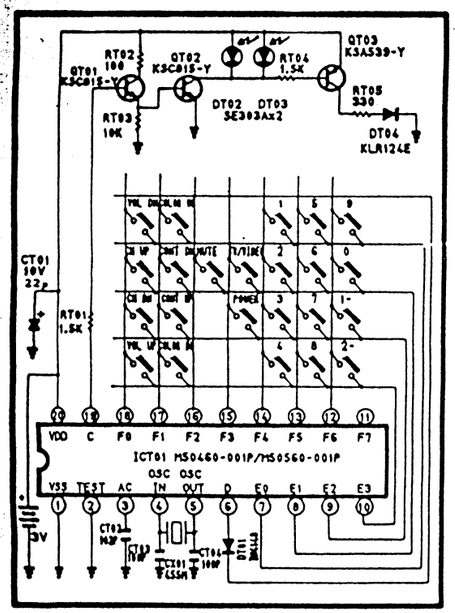
3. The schematic shown is representative only.
4. All wavefroms are taken using a wide band oscilloscope and a low capacity probe.
5. Check FINE TUNING, AGC, BRIGHTNESS, CONTRAST and COLOUR controls for best picture.
6. Waveforms are taken using a standard colour bar signal.

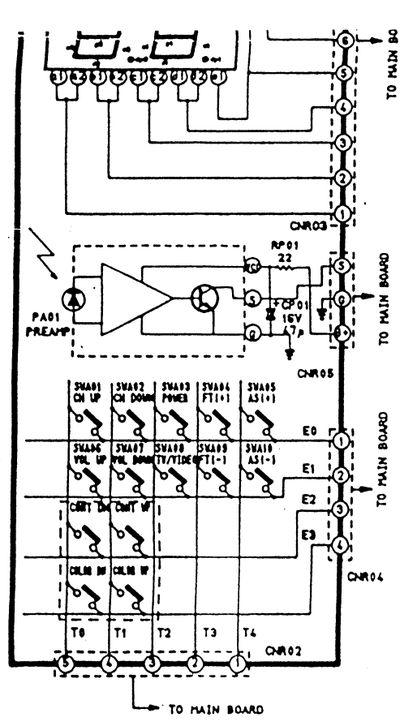
REPLACEMENT TABLE		
LOC-NO \ DASH	10" 14"	16" 20"
RA16	1W 27KJ	1W 51Ω-J
R208	1/2W 3.9K-F	1/2W 68.2K-F
C613	25V 27U	DELETE
C8684	50V 10μF	DELETE
T602	L-20-14	E-10-10
T644	PCH-1611K.01	PCH-2015KL
RA84	310 1650-Y	330H661-Y

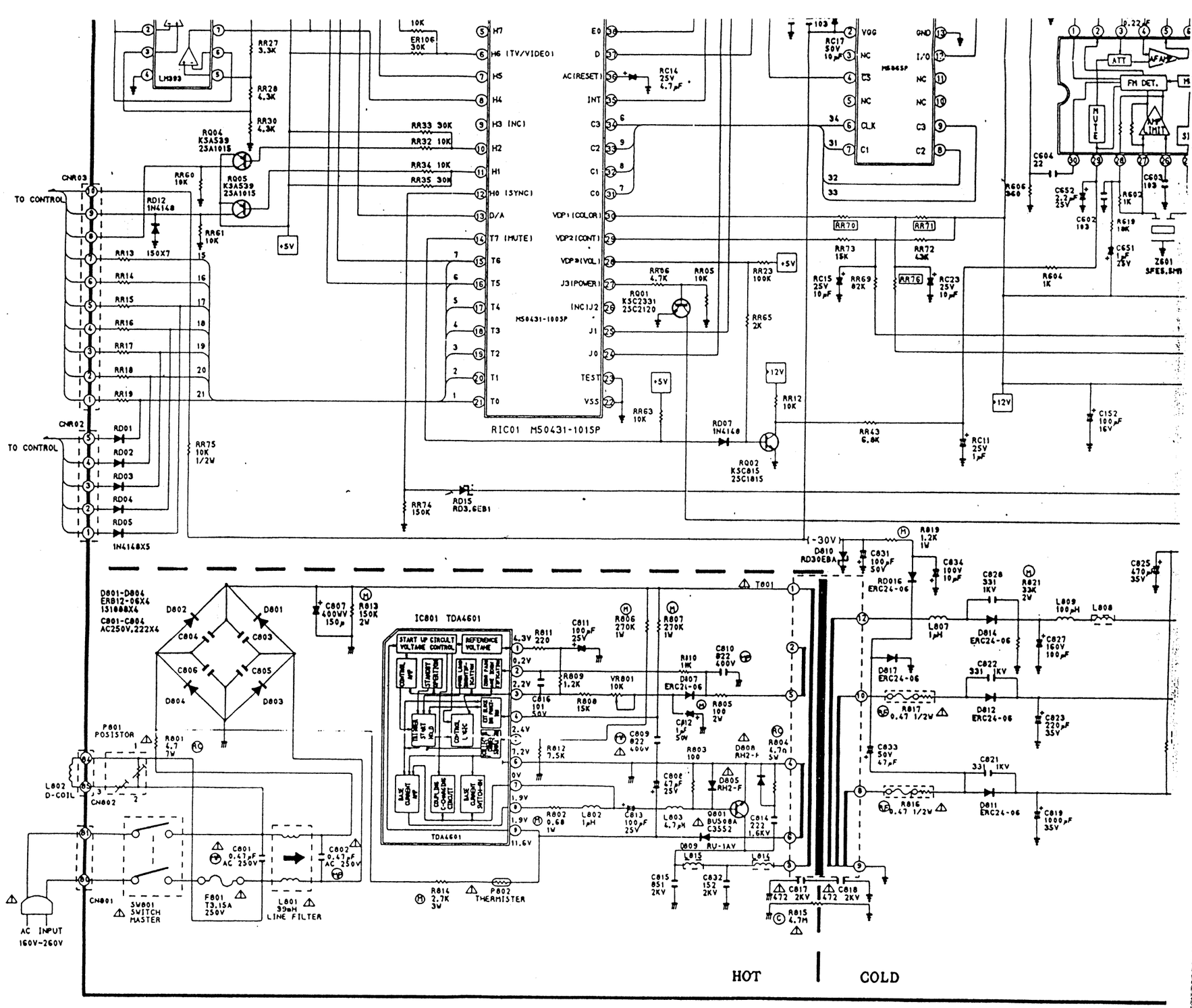




PWB-TRANSMITTER







EXPRESSION

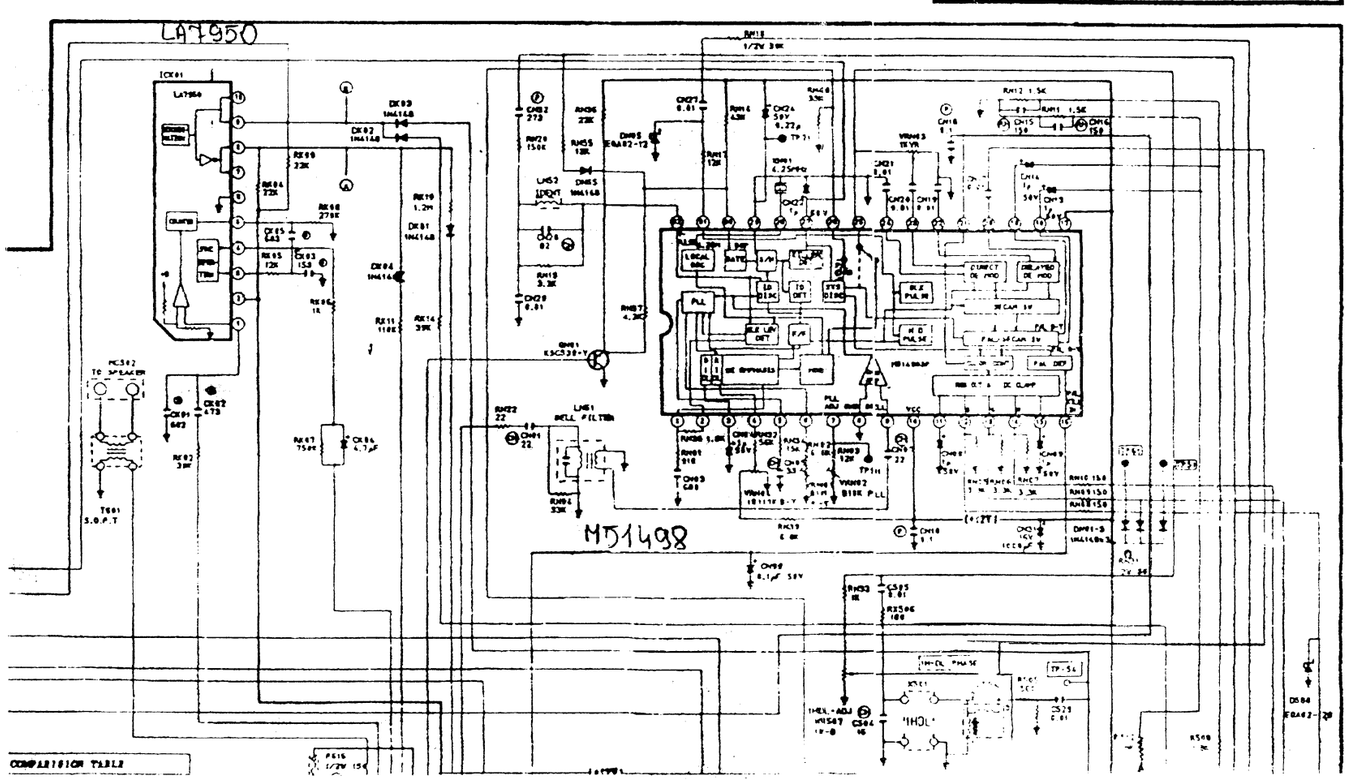
1 Resistance is shown ohm K=1,000 M=1,000,000.
2 Unless otherwise noted in schematic,allcapacitor values less than 1 are expressed in mfd,the values more than 1 in pF.
3 Unless otherwise noted in schematic all inductor values are expressed in uH,and the values less than 1 in mH.

NOTE

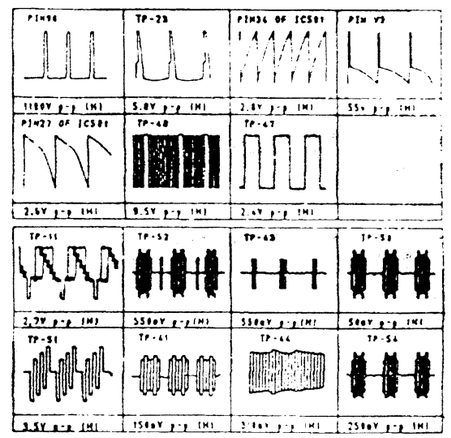
The circuits are subject to change without notice to improve the quality

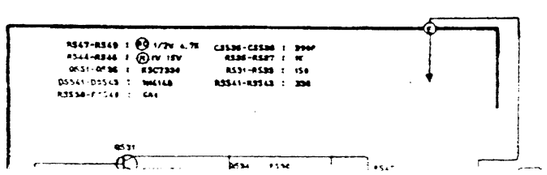
RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cement	R-C
Variable Resistor	
Positive Resistor	

CAPACITOR	
TYPE	MARK
Ceramic	No Mark
Polyester	P
Tantalum	T
Metal Polyestor	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	
Chemical Non-Polar	



THE WAVEFORMS OF EACH TEST POINT

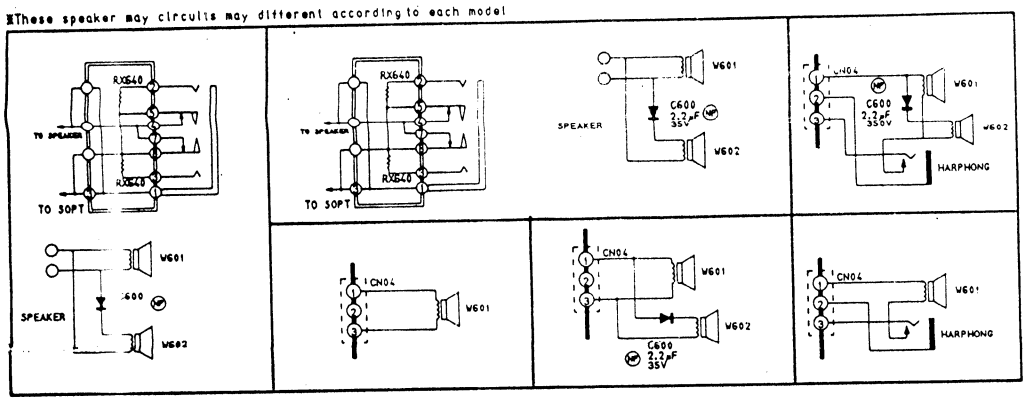


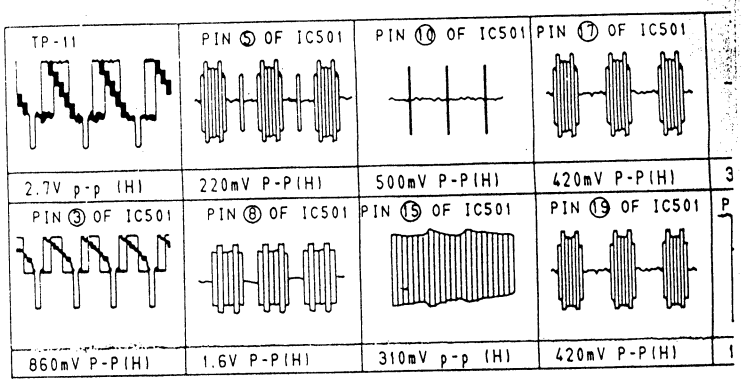


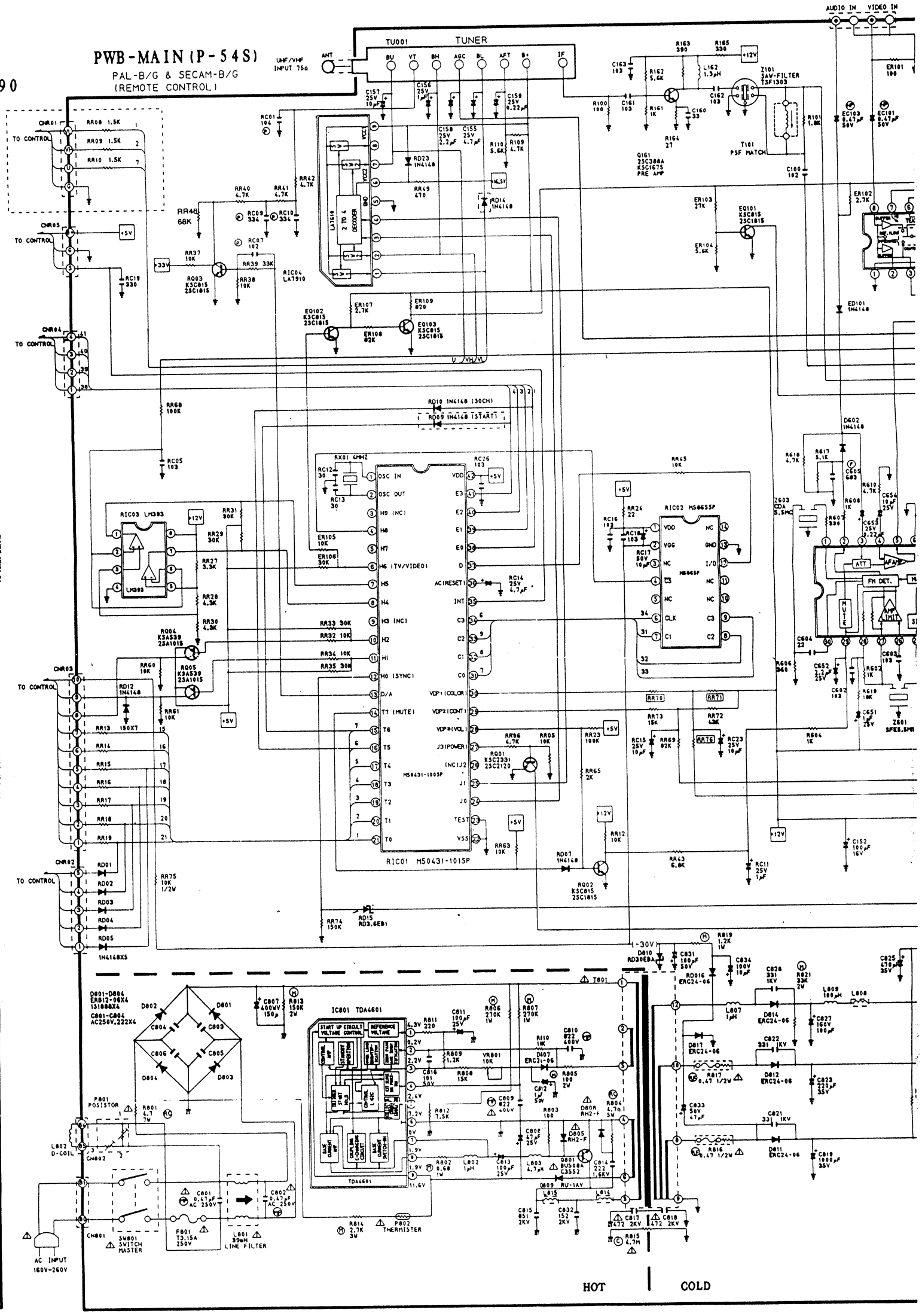
CHASSIS NAME : P-54S
CODE NO. : 38104-182-790

PWB-MAIN (P-54S)

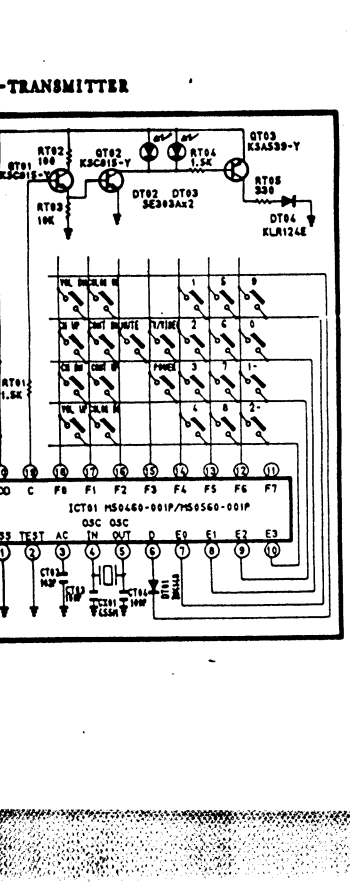
PAL-B/G & SECAM-B/G
(REMOTE CONTROL)



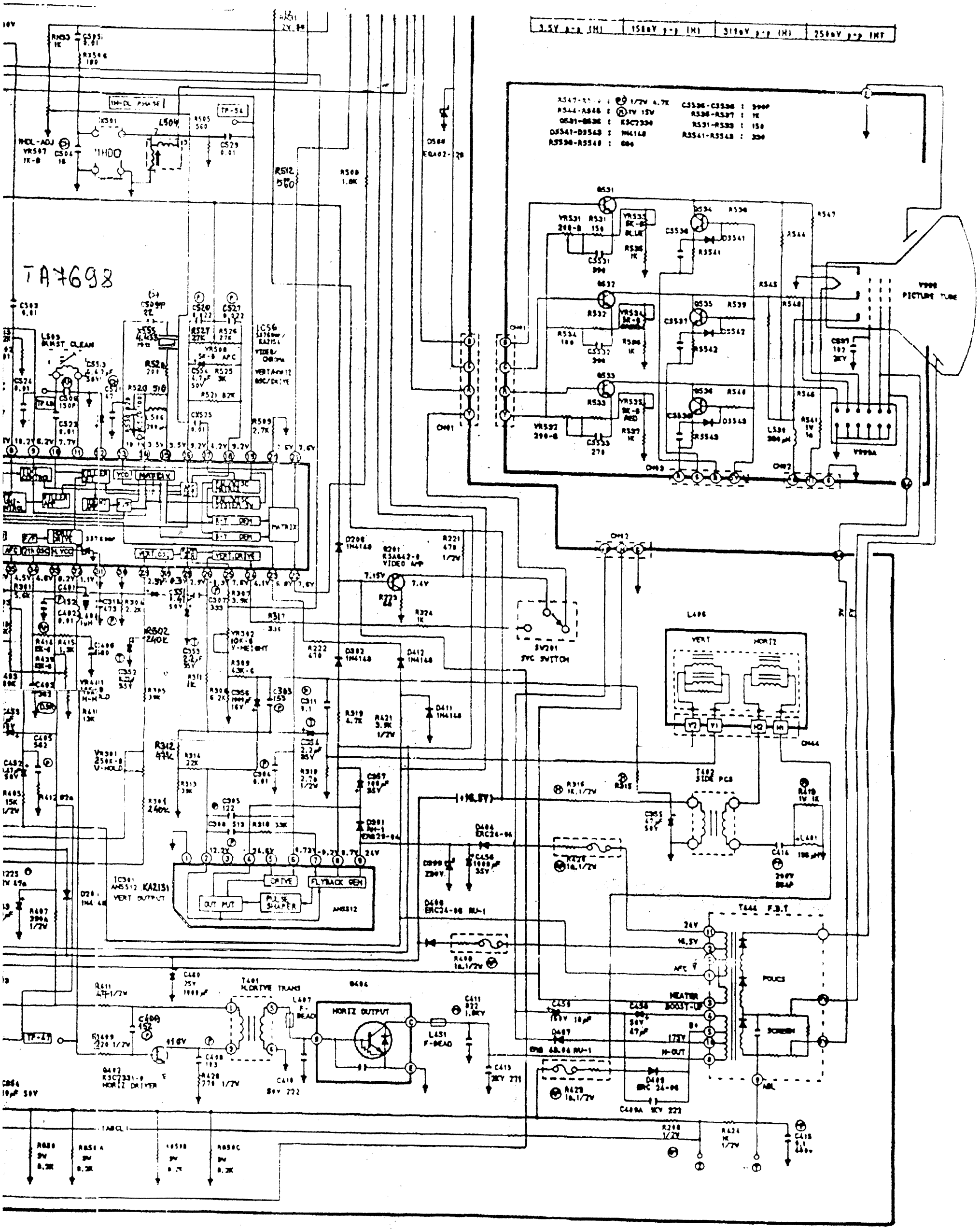




PWB-CONTROL



PWB-TRANSMITTER


TA7698
HORIZ OUTPUT
VERT OUTPUT
FLYBACK GEN
DRIVE
PULSE SHAPER
PICTURE TUBE
FLYBACK
YOKE
SVC SWITCH
HEATER
SCREEN
FOCUS
H-OUT
B+
VCO
MATRIX

B/T - COMPARISION TABLE		
	B/G , DK , I	
Z401	ECC-7883HE	ECC-7883HE
Z2301	TSF-1312A	TSF-1312A
Z2302	TPS 6.5MB	TPS 6.5MB
Z601	DELETE	TPS 5.5MB
[illegible]	SPT 5.5MB	SPT 6.0MB
[illegible]	CDA 6.5MC	CDA 6.5MC
[illegible]	32710-600-001	32710-600-005

TA7698

Q801
STR50103A

T801
CHOPPER TRANS
53

IC301
AN5512 : KA2131
VERT OUTPUT

Z401
SIF
CONVERTER

Z2302
TPS

Z2301
TPS

Q502
2SC2331A-Y

Q503
2SC2331A-Y

Q601
2SC2073

Q602
KSA940

Q520
2SA461-2AC

Q402
2SC2331-Y
HORIZ DRIVER

D801
D802
D803
D804
D805
D806
D807
D808
D809
D810
D811
D812
D813
D814
D815
D816
D817
D818
D819
D820
D821
D822
D823
D824
D825
D826
D827
D828
D829
D830
D831
D832
D833
D834
D835
D836
D837
D838
D839
D840

SET-COMPARISON TABLE		
	3/5	8/6 , DX , T
	ECC-1603HE	ECC-1603HE
	T3P-1303H	T3P-1312A
	TP3 5.5MB	TP3 6.5MB
	DELETE	TP3 5.5MH
	3PT 5.5MB	3PE 6.0MB
	CDA 5.5MC	CDA 6.0MC
	R2710-600-00*	R2740-600-00*

5.5V p-p INI	150mV p-p INI	310mV p-p INI	250mV p-p INT

TA7698

T801
CHOPPER TRANS
53

Q801
STR50103A

T401
H.DRIVE TRANS

HORIZ OUTPUT

T444 F.B.T

POWER

SCREEN

HEATER
B553Y-UP

FLYBACK GEN

DRIVE

OUT PUT

PULSE SHAPER

IC301
AN5512 B43131
VERT OUTPUT

SW201
SYNC SWITCH

V999
PICTURE TUBE

T172
SIZE PCB

T173
VIDEO DET

T174
AFT-BAL

AGC
DELAY

RF AGC

VIDEO AMP

SYNC DET

VIDEO DET

CONVERTER

LA7520

H-OUT

H-DRIVE

AFC

VERT

HORIZ

3.5V p-p (H)	158mV p-p (H)	317mV p-p (H)	250mV p-p (H)

BIT-COMBINATION TABLE		
	3YS	B/G , DK , I
	ECC-1003ME	ECC-1063ME
	TSF-1303M	TSF-1313A
	TP3 5.5MB	TP3 6.5MB
	DELETE	TP3 5.5MW
	SPT 5.5MB	SPT 6.0MB
	CDA 5.5MC	CDA 6.0MC
	32719-600-001	32719-600-005

TA7698

T801
CHOPPER TRANS
53

Q801
5TR50103A

T401
H.DRIVE TRANS

HORIZ OUTPUT

T444 F.B.T

V999
PICTURE TUBE

DY201
SVC SWITCH

IC301
AN5512 EA2131
VERT OUTPUT

DRIVE
FLYBACK GEN
OUT PUT
PULSE SHIFTER

EXPRESSION

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2 Unless otherwise noted in schematic,allcapacitor values less than 1 are expressed in mfd,the values more than 1 in pF.
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Positive Resistor	

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TYPE	MARK
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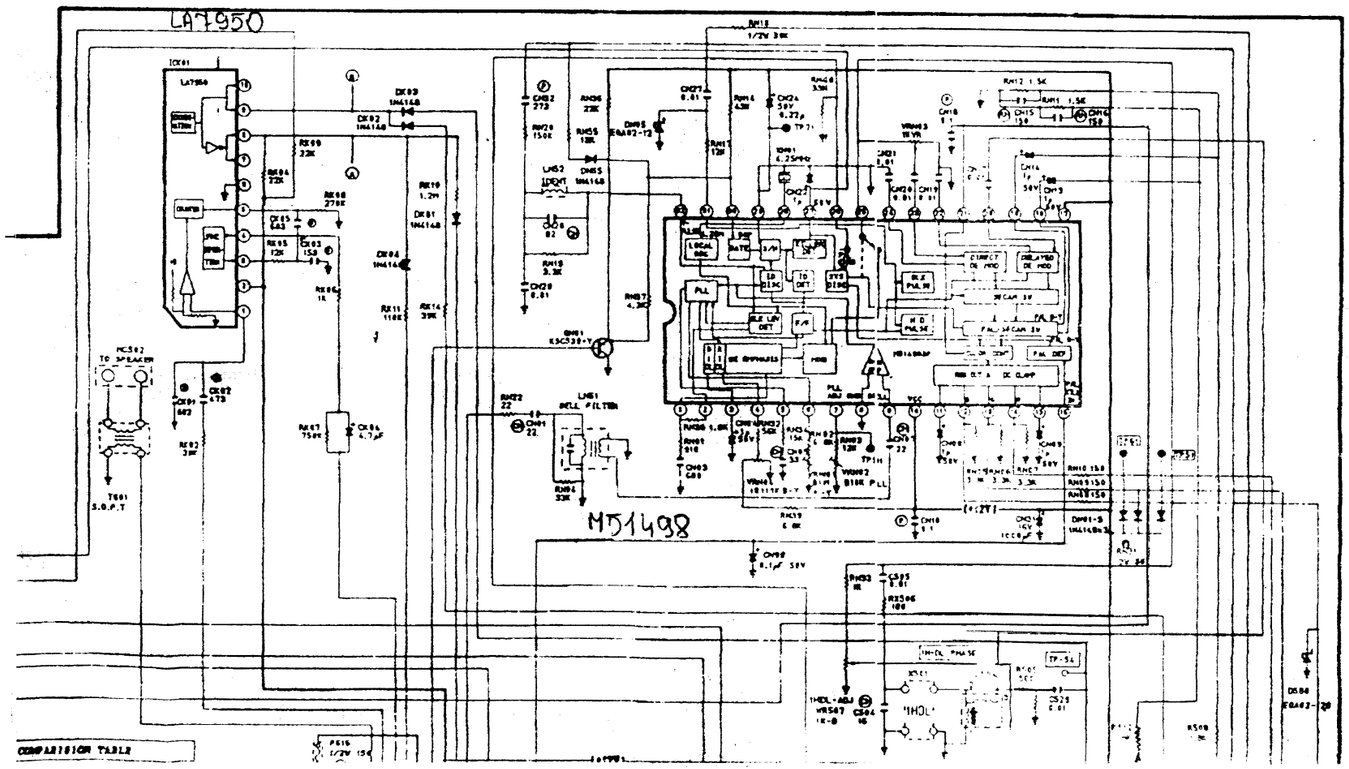
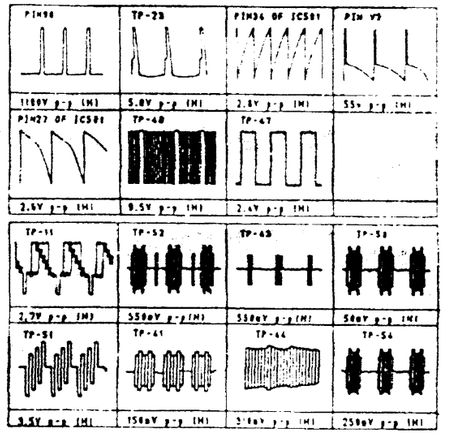
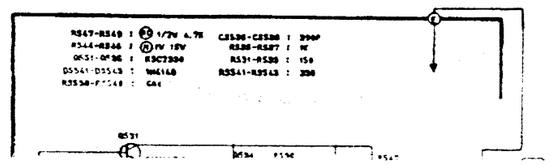
Polyester	P
Tantalium	T
Metal Polyestor	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	
Chemical Non-Polar	



THE WAVEFORMS OF EACH TEST POINT